FIGURE 1A

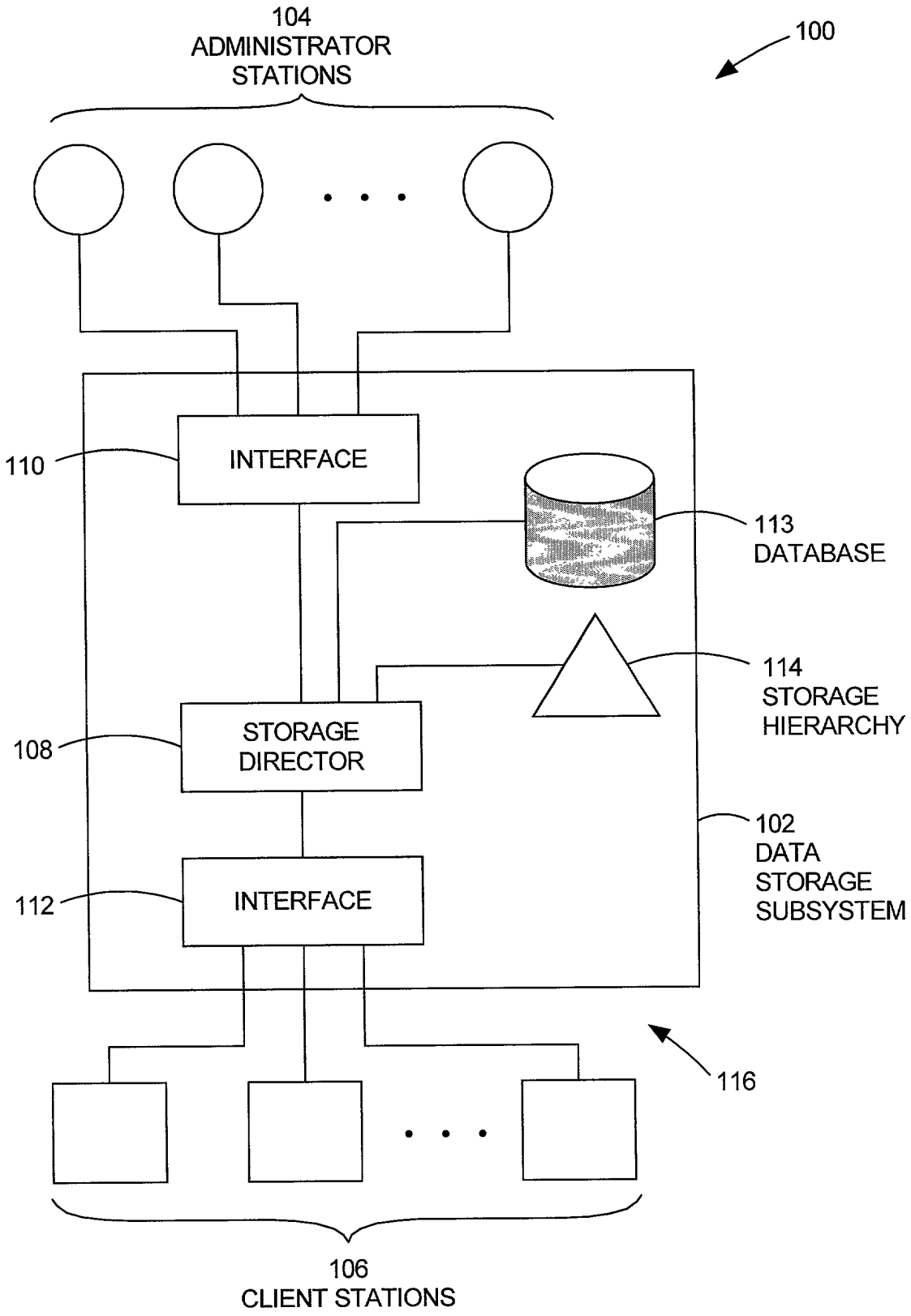
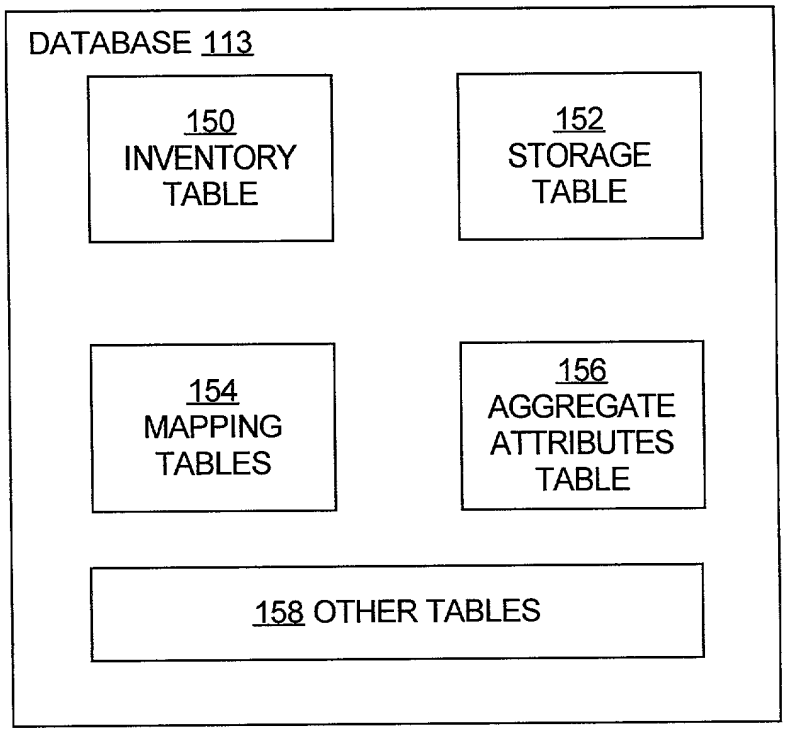

104
ADMINISTRATOR
STATIONS
100
110
INTERFACE
113
DATABASE
114
STORAGE
HIERARCHY
108
STORAGE
DIRECTOR
102
DATA
STORAGE
SUBSYSTEM
112
INTERFACE
116
106
CLIENT STATIONS

FIGURE 1B


DATABASE 113
150 INVENTORY TABLE
152 STORAGE TABLE
154 MAPPING TABLES
156 AGGREGATE ATTRIBUTES TABLE
158 OTHER TABLES

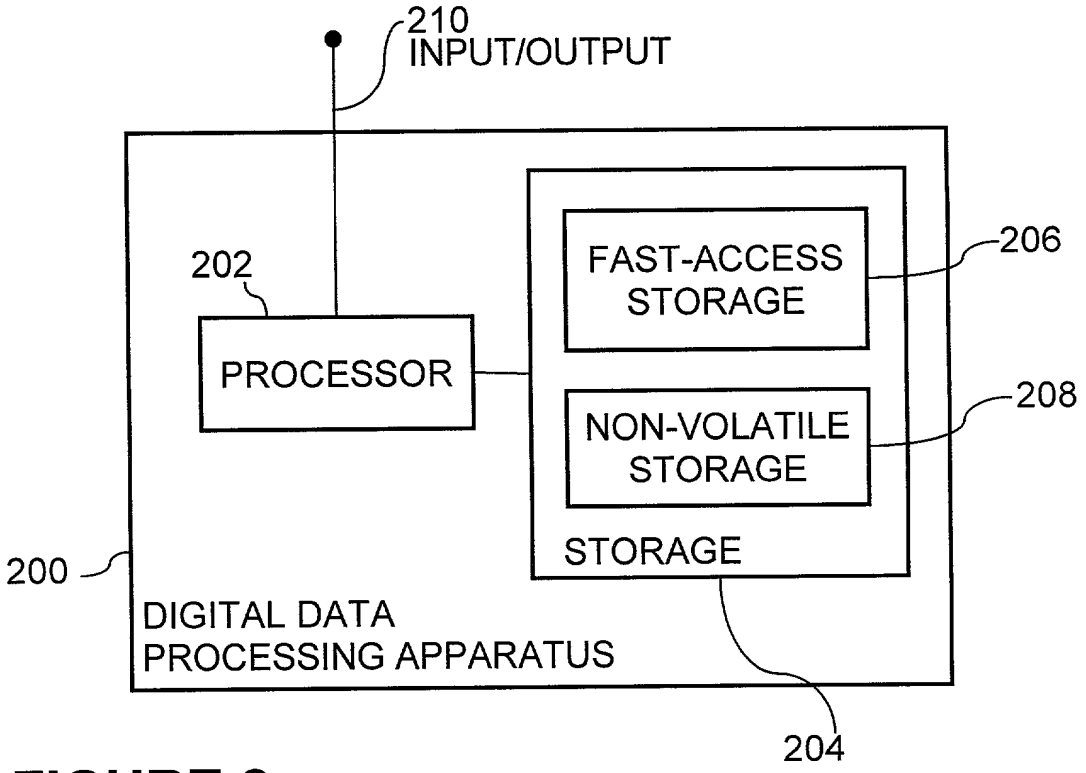


FIGURE 2

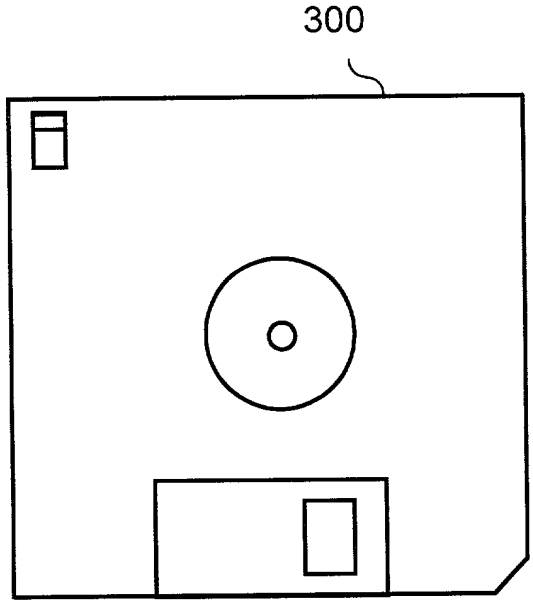


FIGURE 3

FIGURE 4A

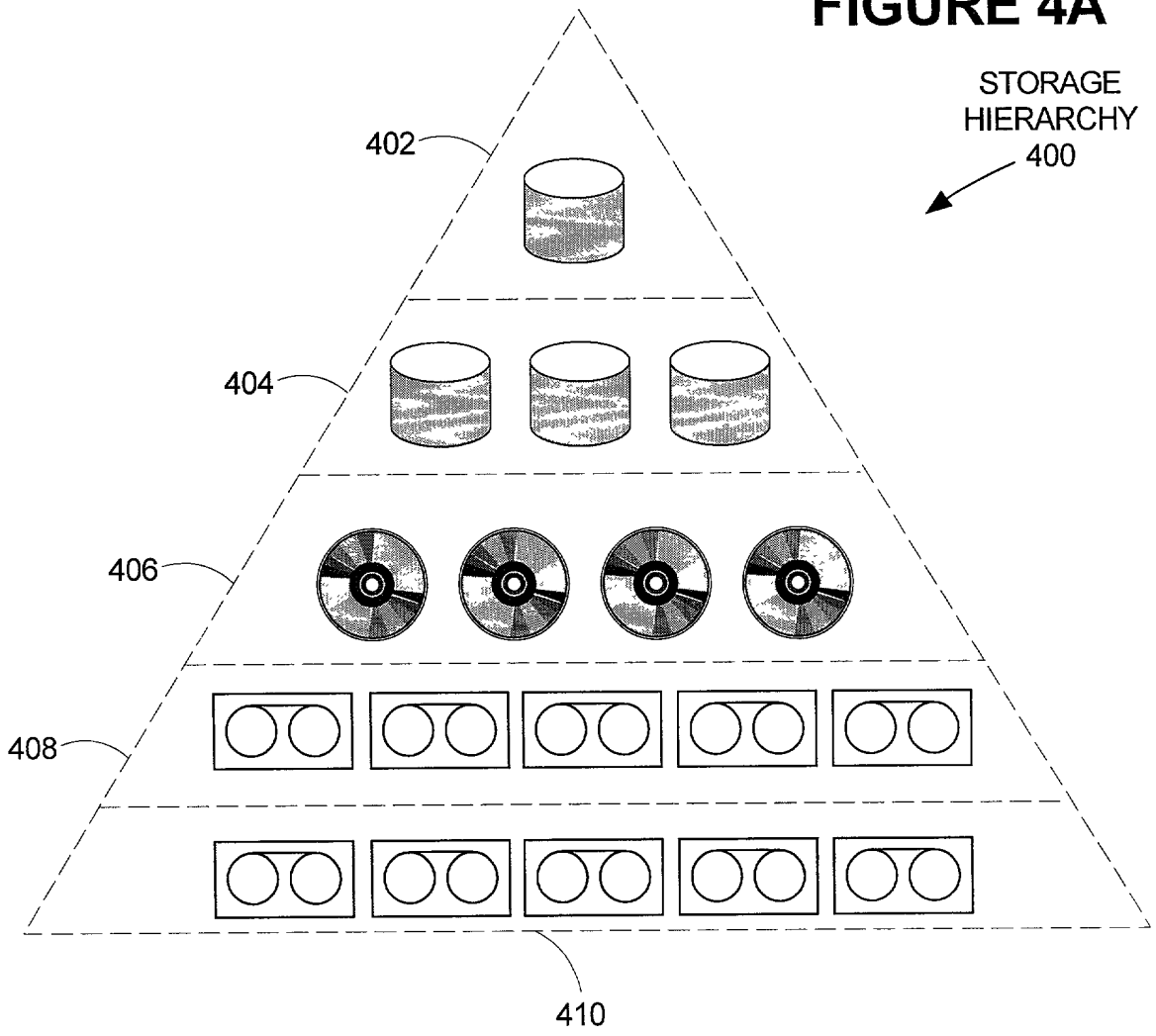


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FIGURE 4B

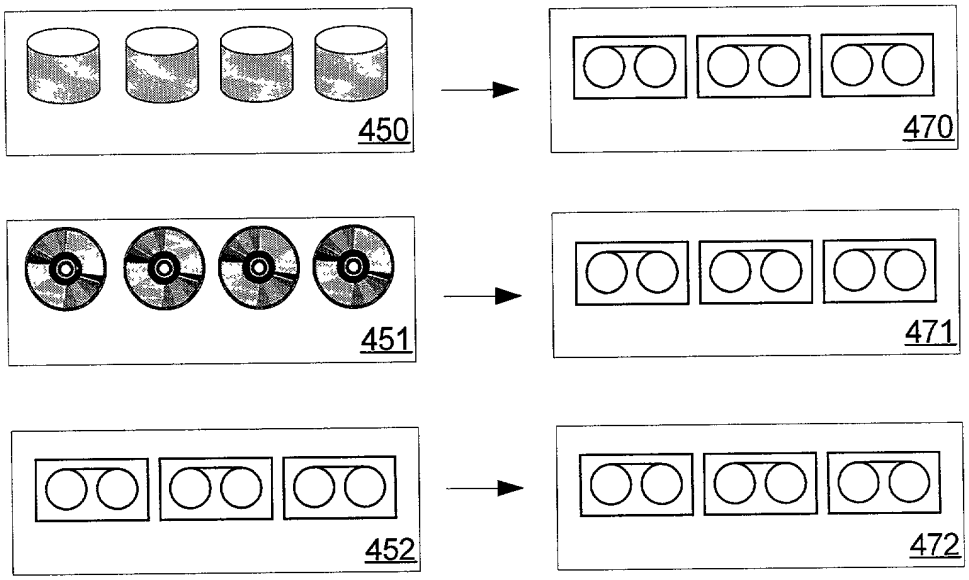


FIGURE 5

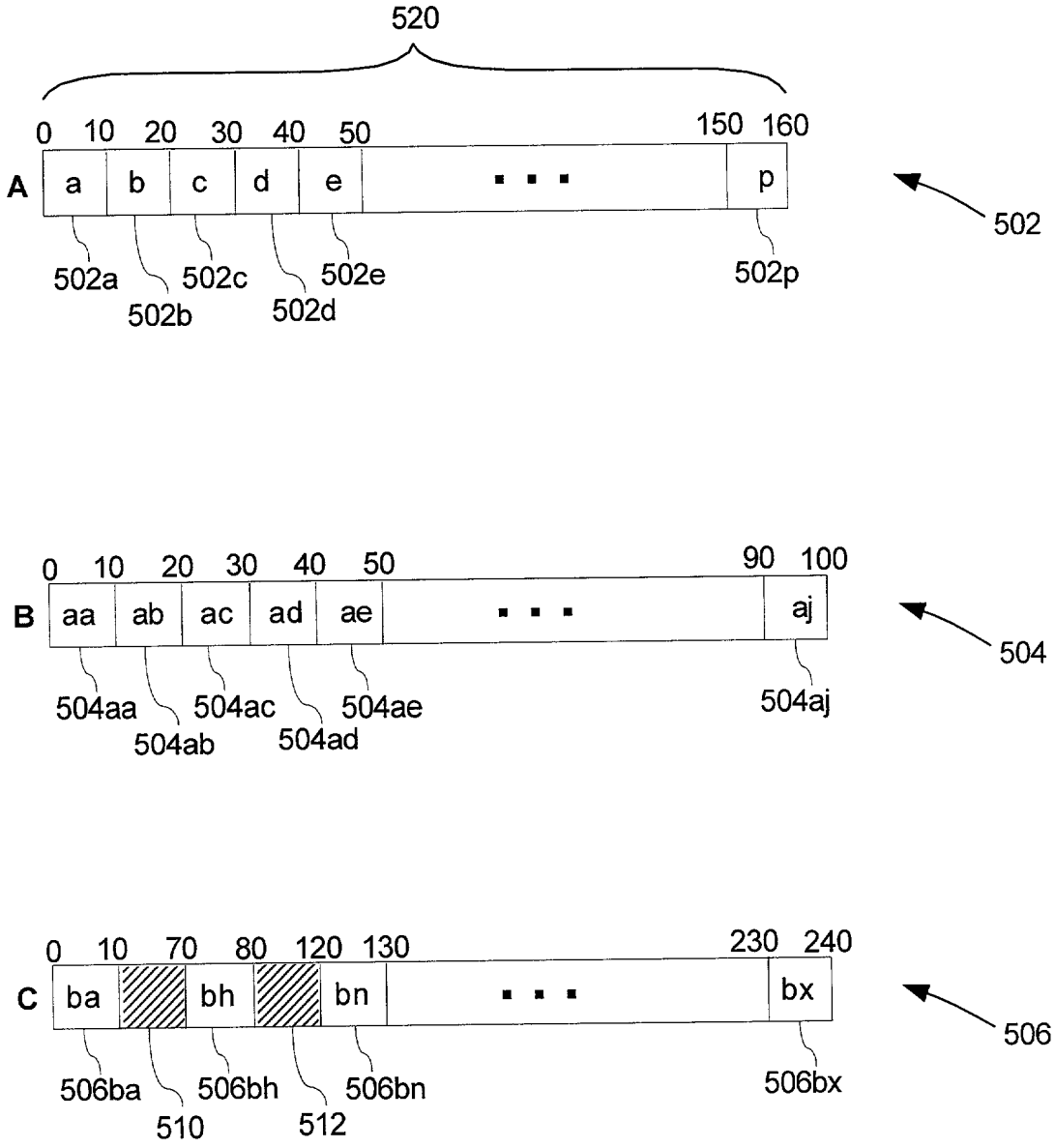

520
0 10 20 30 40 50 150 160
A
a b c d e . . . p
502
502a 502b 502c 502d 502e 502p
0 10 20 30 40 50 90 100
B
aa ab ac ad ae . . . aj
504
504aa 504ab 504ac 504ad 504ae 504aj
0 10 70 80 120 130 230 240
C
ba bh bn . . . bx
506
506ba 510 506bh 512 506bn 506bx

FIGURE 6

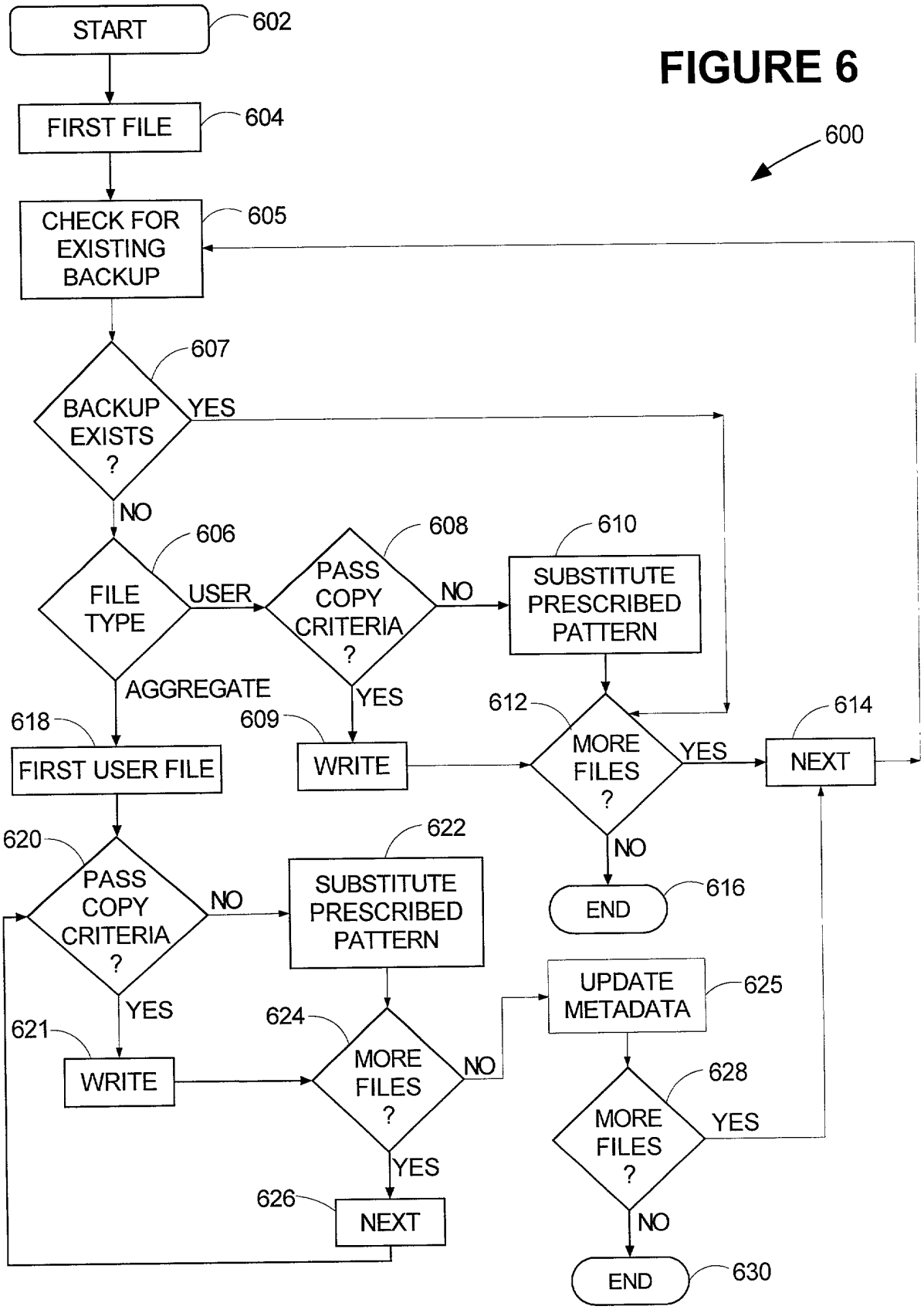
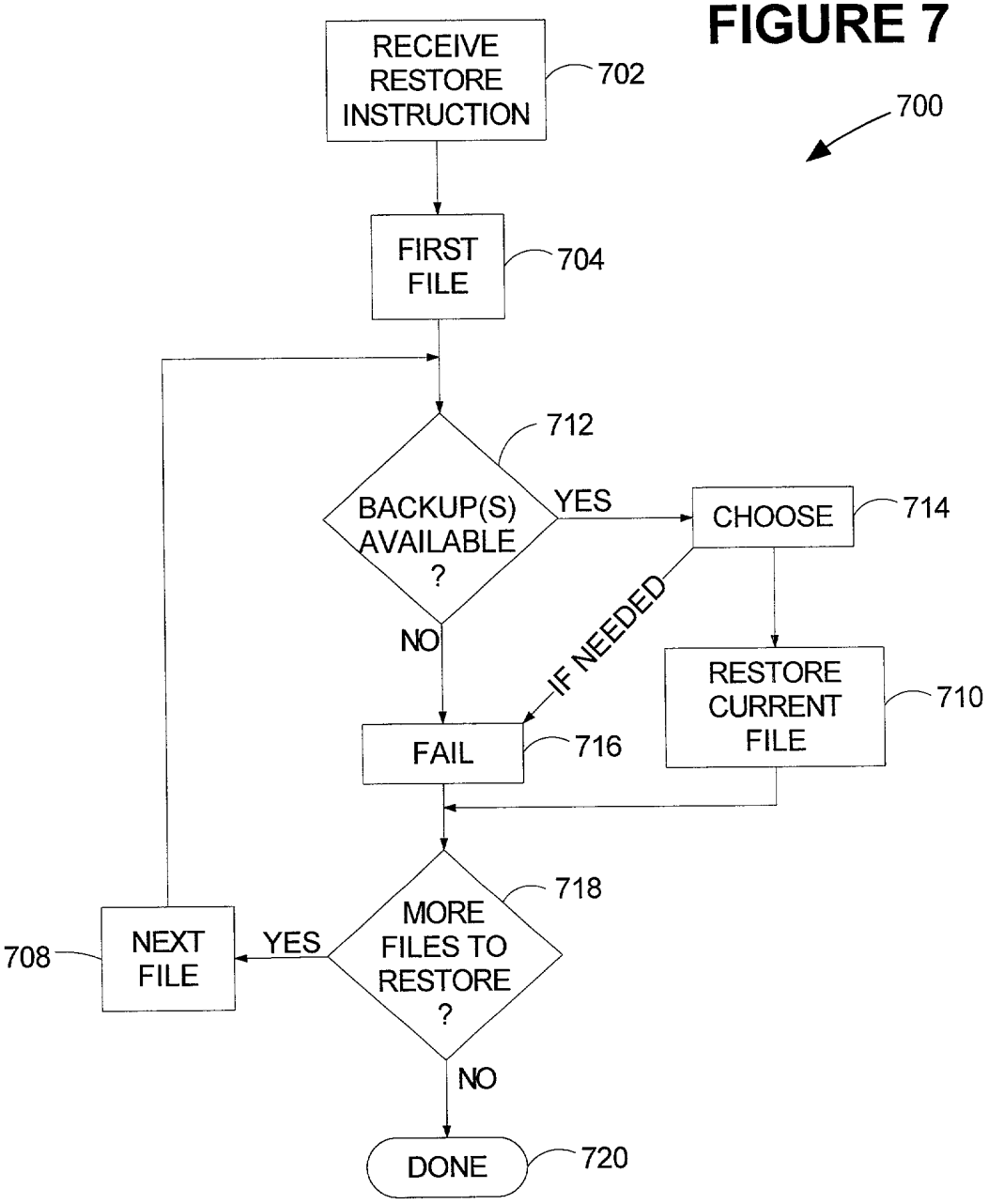

600
START
602
FIRST FILE
604
CHECK FOR EXISTING BACKUP
605
BACKUP EXISTS ?
607
YES
NO
FILE TYPE
606
USER
AGGREGATE
PASS COPY CRITERIA ?
608
NO
YES
SUBSTITUTE PRESCRIBED PATTERN
610
MORE FILES ?
612
YES
NO
NEXT
614
WRITE
609
FIRST USER FILE
618
END
616
PASS COPY CRITERIA ?
620
NO
YES
SUBSTITUTE PRESCRIBED PATTERN
622
WRITE
621
MORE FILES ?
624
NO
YES
UPDATE METADATA
625
MORE FILES ?
628
YES
NO
NEXT
626
END
630

FIGURE 7


RECEIVE RESTORE INSTRUCTION
702
700
FIRST FILE
704
712
BACKUP(S) AVAILABLE ?
YES
CHOOSE
714
NO
IF NEEDED
RESTORE CURRENT FILE
710
FAIL
716
718
MORE FILES TO RESTORE ?
708
NEXT FILE
YES
NO
DONE
720

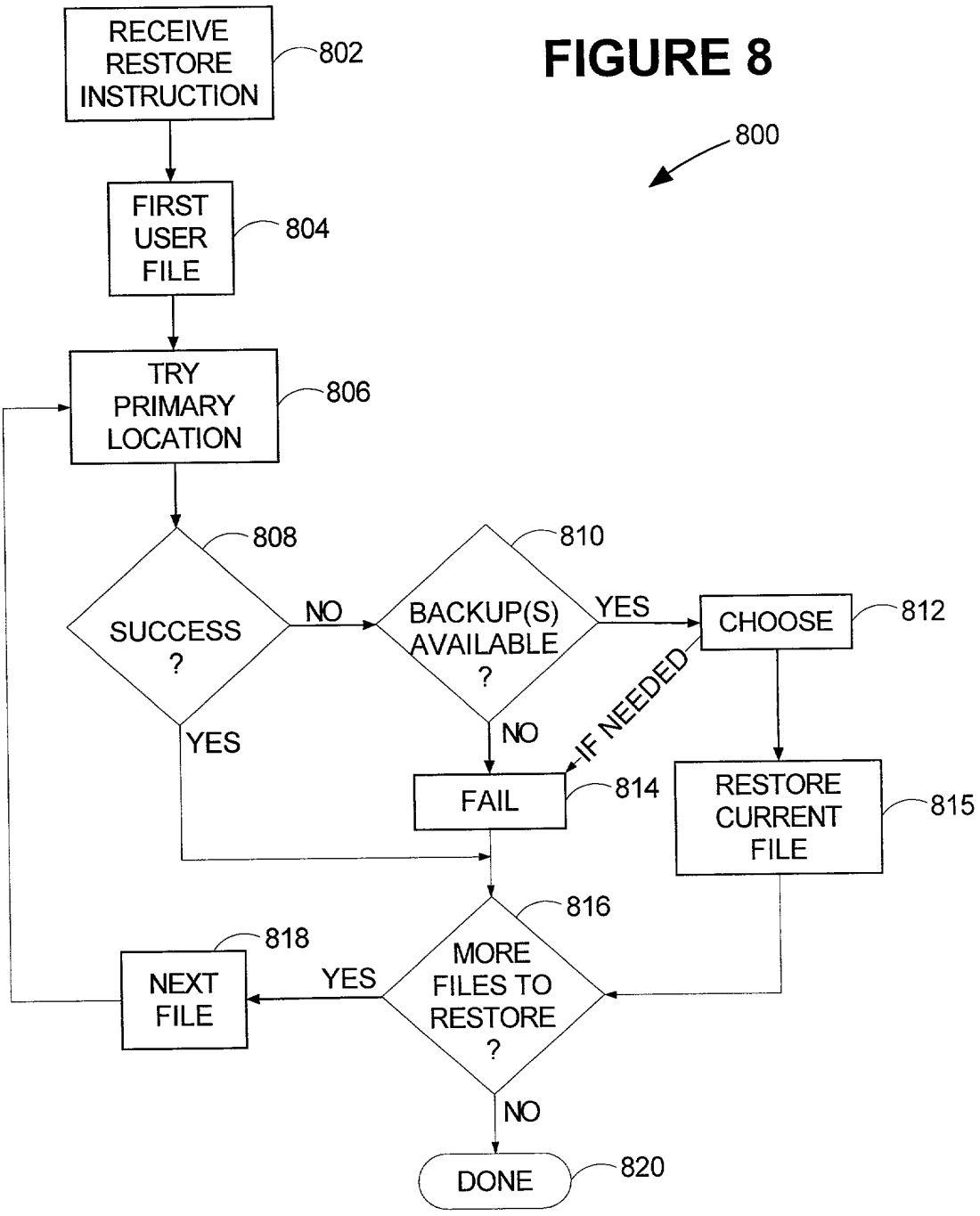

RECEIVE RESTORE INSTRUCTION
802
800
FIRST USER FILE
804
TRY PRIMARY LOCATION
806
808
SUCCESS ?
NO
BACKUP(S) AVAILABLE ?
810
YES
CHOOSE
812
IF NEEDED
YES
NO
FAIL
814
RESTORE CURRENT FILE
815
816
MORE FILES TO RESTORE ?
YES
818
NEXT FILE
NO
DONE
820

FIGURE 8